



# UNITED STATES PATENT AND TRADEMARK OFFICE

8  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,715	04/06/2001	Christine W. Jarvis	WLG-1	5602
22827	7590	06/01/2007	EXAMINER	
DORITY & MANNING, P.A. POST OFFICE BOX 1449 GREENVILLE, SC 29602-1449			RHEE, JANE J	
		ART UNIT	PAPER NUMBER	
		1745		
		MAIL DATE		DELIVERY MODE
		06/01/2007		PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/828,715	JARVIS ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Jane Rhee	1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 16 March 2007.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 100,101,103-113 and 123-125 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 100,101,103-113,123-125 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election with traverse of group I in the reply filed on 3.16/2007 is acknowledged. The traversal is on the ground(s) that there is no undue burden on the examiner to search both groups of claims. This is not found persuasive because there are different areas of searches for each group.

The requirement is still deemed proper and is therefore made FINAL.

***Rejections Withdrawn***

2. The 35 U.S.C. 112 1<sup>st</sup> paragraph rejection of claims 115,116,122 has been withdrawn due to applicant's amendment filed on 11/10/2006.
3. The 35 U.S.C. 112 1<sup>st</sup> paragraph rejection of claim 124 has been withdrawn due to applicant's arguments filed on 11/10/2006.
4. The 35 U.S.C. 112 2<sup>nd</sup> paragraph rejection of claims 108, 117 has been withdrawn due to applicant's amendment filed on 11/10/2006.
5. The 35 U.S.C. 102(b) rejection of claims 100-101,103-121,123,125 anticipated by Gaylord Jr. has been withdrawn due to applicant's amendment filed on 11/10/2006.
6. The 35 U.S.C. 103(a) rejection of claims 102,122 over Gaylord Jr. in view of Obayashi et al. has been withdrawn due to applicant's amendment filed on 11/10/2006.

***New Rejections***

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 123-125 are rejected under 35 U.S.C. 102(b) as being anticipated by Obayashi et al. (4410575).

As to claim 123, Obayashi et al. discloses a multilayer stitchless seam comprising a first tape portion, a first substrate portion in contact with the first tape portion (figure 6 number 3), a second tape portion in contact with the first substrate portion (figure 6 number 11), a second substrate portion in contact with the second tape portion (figure 6 number 11 and 4), and a third tape portion in contact with the second substrate portion to provide a flexible seam between the layers (figure 6 number 13) wherein at least one of the first substrate and the second substrate is a composite substrate comprising at least two layers (col. 3 line 40).

As to claim 124, Obayhasi et al. discloses a third substrate portion (figure 6 number 12).

As to claim 125, Obayhasi et al. discloses wherein the seam is a welded seam (col. 4 lines 25-28).

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 1745

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 100-101,103-113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaylord Jr. in view of Webb (2372632).

As to claim 100, Gaylord Jr discloses a five layer stitchless seam comprising a first thermoplastic tape portion (figure 13 top of number 55), a first substrate portion in contact with the first thermoplastic tape portion (Figure 13 number 68 top of number 55), a second thermoplastic tape portion in contact with the first substrate portion (figure 13 number 68 bottom of number 55), a second substrate portion in contact with the second thermoplastic tape portion (figure 13 number 68 top of number 52), and a third thermoplastic tape portion in contact with the second substrate tape portion (figure 13 number 58 bottom of number 52) to provide a flexible stitchless seam between the five layers (figure 13).

Gaylord Jr fail to disclose wherein at least one of the first thermoplastic tape portion, the second thermoplastic tape portion, and the third thermoplastic tape portion is a multilayer tape portion that runs the length of the seam and includes a first continuous layer having a first melting point and a second continuous layer having a second melting point.

Webb teaches wherein at least one of the first thermoplastic tape portion, the second thermoplastic tape portion, and the third thermoplastic tape portion is a multilayer tape portion that runs the length of the seam and includes a first continuous layer having a first melting point and a second continuous layer having a second melting point (figure 2,3,4 and in figure 4 number 18 and 17 are different layers of the tape

Art Unit: 1745

material thus having different melting temperatures, see col. 3 lines 5-13) for the purpose of preventing moisture from seeping between the plies of the fabric section, thus creating a water tight seam (col. 3 lines 18-19).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide, Gaylord with at least one of the first thermoplastic tape portion, the second thermoplastic tape portion, and the third thermoplastic tape portion is a multilayer tape portion that runs the length of the seam and includes a first continuous layer having a first melting point and a second continuous layer having a second melting point in order to prevent moisture from seeping between the plies of the fabric section, thus creating a water tight seam (col. 3 lines 18-19) as taught by Webb.

As to claim 103, Gaylord Jr. discloses at least two of the tape portions and the substrate portions are the same materials (figure 13 number 68 and col. 2 line 56). As to claim 104, Gaylord Jr. discloses the first substrate portion and the second substrate portion are different materials (figure 13 number 55 and 52). As to claim 105, Gaylord Jr. discloses at least one of the substrate portions comprises a barrier layer (the substrates are made of cotton fibers, rayon and rubber which can be considered as a barrier layer). As to claim 106, Gaylord Jr. discloses at least one of the substrate portions comprises a fabric (col. 3 line 23). As to claim 107, Gaylord Jr. discloses at least that both the first substrate portion and the second substrate portion comprises a fabric (col. 3 line 23).

As to claim 108, Gaylord Jr. discloses wherein at least four areas of the first and second substrate portions are bonded in a cross sectional area of the seam (figure 13 top and bottom portion of substrate 55 and top and bottom portion of substrate 52). As to wherein the seam has a strength greater than a double felled needle sew seam made with the same substrate, since Gaylord Jr. teaches that the first and second substrate is made of fabric and the tape is made of a thermoplastic material as desired by the applicant, it is inherent that the seam has a strength greater than a double felled needle sewn seam made with the same substrates.

As to claims 109-112, Gaylord Jr. discloses that at least four areas of the first and second substrates are bonded in a cross sectional areas of the seam. Since, Gaylord Jr. teaches that the first and second substrate is made of fabric and the tape is made of a thermoplastic material as desired by the applicant, it is inherent that the tensile grab strength is at least 150kg.

As to claim 113, Gaylord Jr. discloses that the seam is a welded seam (col. 4 lines 20-24).

#### ***Response to Arguments***

9. Applicant's arguments with respect to claims 100-101,103-113,123-125 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane Rhee whose telephone number is 571-272-1499. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jane Rhee  
May 17, 2007



PATRICK JOSEPH RYAN  
SUPERVISORY PATENT EXAMINER